

AMENDMENTS TO CLAIMS

Claim 1 (currently amended): An assembly for an automotive vehicle ~~article of manufacture~~, the assembly comprising:

a first member of the automotive vehicle ~~article of manufacture~~;

a second member of the automotive vehicle ~~article of manufacture~~ opposing the first member;

a first expandable material disposed between the first member and the second member, the first expandable material configured for expanding a first amount upon exposure to a condition; and

a second expandable material disposed between the first member and the second member ~~the roof bow panel and the outer roof panel~~, the second expandable material configured for expanding a second amount upon exposure to a condition, the first amount being greater than the second amount and the second amount being a volumetric expansion of about 5% to about 700%;

wherein the first member or the second member is an outer panel of the automotive vehicle.

Claim 2 (original): An assembly as in claim 1 wherein the first member is a panel and the second member is a panel.

Claim 3 (original): An assembly as in claim 2 wherein at least a portion of the first member or the second member is configured as part of a roof of an automotive vehicle.

Claim 4 (original): An assembly as in claim 2 wherein the first expandable material is configured as a strip and the second expandable material is configured as a strip, both strips extending longitudinally with the panels.

Claim 5 (original): An assembly as in claim 4 wherein the first expandable material is configured as a plurality of strips and the second expandable material is also configured as a plurality of strips.

Claim 6 (original): An assembly as in claim 4 wherein the strip of the first expandable material is an extruded strip.

Claim 7 (original): An assembly as in claim 2 wherein the first expandable material has a post expansion density from about 0.005 g/cm^3 to about 0.15 g/cm^3 and the second expandable material has a post expansion density of about 0.16 g/cm^3 to about 0.8 g/cm^3 .

Claim 8 (original): An assembly as in claim 2 wherein the first expandable material has a weight percentage of curing agent that is at least 10% less than a weight percentage of curing agent for the second expandable material.

Claim 9 (original): An assembly as in claim 2 wherein the second expandable material has a higher strength than the first expandable material upon expansion.

Claim 10 (original): An assembly as in claim 4 wherein the strip of the second expandable material is positioned adjacent a structural feature of at least one of the first member and the second member.

Claim 11 (original): An assembly as in claim 10 wherein the structural feature is a pair of protrusions and the strip of the second expandable material is positioned between the pair of protrusions.

Claim 12 (currently amended): A roof assembly for an automotive vehicle, the assembly comprising:

- a roof bow panel of the automotive vehicle;

- an outer roof panel of the automotive vehicle generally opposing and substantially parallel to the roof bow panel;

- a first expandable material disposed between the roof bow panel and the outer roof panel, wherein:

- i) the first expandable material is configured for expanding a first amount upon exposure to a condition, the first amount being a volumetric expansion of between about 300% to about 800%; and
- a second expandable material disposed between the roof bow panel and the outer roof panel, wherein;
- i) the second expandable material is configured for expanding a second amount upon exposure to a condition, the second amount being a volumetric expansion of between about 15% and about 250%; and
 - ii) the first material includes a weight percentage of blowing agent that is at least 30% greater than a weight percentage of blowing agent in the second material;

Claim 13 (original): An assembly as in claim 12 wherein the first expandable material is configured as a strip and the second expandable material is configured as a strip, both strips extending longitudinally with the roof bow panel and the outer roof panel.

Claim 14 (original): An assembly as in claim 13 wherein the first expandable material is configured as a plurality of strips and the second expandable material is also configured as a plurality of strips.

Claim 15 (original): An assembly as in claim 13 wherein the strip of the first expandable material is an extruded strip.

Claim 16 (original): An assembly as in claim 12 wherein the first expandable material has a post expansion density from about 0.005 g/cm^3 to about 0.15 g/cm^3 and the second expandable material has a post expansion density of about 0.16 g/cm^3 to about 0.8 g/cm^3 .

Claim 17 (original): An assembly as in claim 12 wherein the first expandable material has a weight percentage of curing agent that is at least 10% less than a weight percentage of curing agent for the second expandable material.

Claim 18 (original): An assembly as in claim 12 wherein the second expandable material has a higher strength than the first expandable material.

Claim 19 (original): An assembly as in claim 14 wherein the strip of the second expandable material is positioned adjacent a structural feature of at least one of the first member and the second member and wherein the structural feature is a pair of protrusions and the strip of the second expandable material is positioned between the protrusions.

Claim 20 (currently amended): A roof assembly for an automotive vehicle, the assembly comprising:

- a roof bow panel;

- an outer roof panel generally opposing and substantially parallel to the roof bow panel;

- a first expandable material disposed between the roof bow panel and the outer roof panel, wherein:

- i) the first expandable material is configured for expanding a first amount upon exposure to a condition, the first amount being a volumetric expansion of between about 300 % to about 800 %; and

- ii) the first expandable material includes at least 35% by weight ethylene copolymer;

- a second expandable material disposed between the roof bow panel and the outer roof panel, wherein:

- i) the second expandable material is configured for expanding a second amount upon exposure to a condition, the second amount being a volumetric expansion of between about 15% and about 250%;

- ii) the ~~second~~ first material includes a weight percentage of blowing agent that is at least 30% greater than a weight percentage of blowing agent in the second material; and
- iii) the second material includes at least 35 % by weight of an epoxy material.

Claim 21 (original): An assembly as in claim 20 wherein the first expandable material is configured as a strip and the second expandable material is configured as a strip, both strips extending longitudinally with the panels.

Claim 22 (original): An assembly as in claim 21 wherein the first expandable material is configured as a plurality of strips and the second expandable material is also configured as a plurality of strips.

Claim 23 (original): An assembly as in claim 21 wherein the strip of the second expandable material is positioned adjacent a structural feature of at least one of the first member and the second member and wherein the structural feature is a pair of protrusions and the strip of the second expandable material is positioned between the protrusions.

Claim 24 (new): An assembly as in claim 1 wherein the first expandable material, once expanded, is configured to attenuate noise within a first frequency range and wherein the second expandable material, once expanded, is configured to attenuate noise within a second frequency range and wherein the first frequency range is from about 1000 Hz to about 1600 Hz and the second frequency range is from about 150 Hz to about 700 Hz.